Laboratory samples of a potentially hazardous strain of Influenza A (H2N2) Virus:

Threat to Public Health is Low

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What is influenza?

Influenza is a respiratory illness whose symptoms include fever, headache, extreme tiredness, dry cough, sore throat, runny or stuffy nose, and muscle aches. Unlike the common cold, influenza may cause severe illness and life-threatening complications in some people. Influenza can often be prevented by immunization ("flu shots").

What is influenza A (H2N2) virus?

Influenza is caused by a virus, which comes in several types (A and B) and subtypes (H and N). Each winter influenza viruses cause respiratory illness in the United States. The influenza viruses change each year, so the flu shot also changes each year to protect against the virus currently causing influenza.

In 1957 and 1958, the main influenza virus, influenza A (H2N2) virus, caused a pandemic, meaning a global outbreak of disease. First identified in China in late February 1957, the H2N2 virus spread to the United States within a few months. This pandemic of "Asian flu" caused about 70,000 deaths in the United States and over 1 million deaths worldwide. Similar H2N2 viruses continued to cause influenza in the US each year until 1967. Flu shots have not included this type of influenza virus since that time. Nearly 40 years later, very few people are currently immune to H2N2 viruses.

Why is influenza A (H2N2) virus in the news?

A strain of influenza A (H2N2) virus similar to the cause of the 1957-58 Asian flu was discovered in a laboratory in Canada in March 2005. In the autumn of 2004, the virus had been sent in a test kit to thousands of laboratories in 18 countries, including several hundred laboratories in California, as part of routine evaluation of these laboratories' ability to detect influenza virus strains ("proficiency testing"). Since these laboratories routinely use strict safeguards to protect their employees, there is an extremely small chance that influenza A (H2N2) virus could infect laboratory workers and then spread to the general population.

While proficiency testing is necessary to assure that laboratories can identify new influenza viruses that may threaten our health, the World Health Organization has noted that the H2N2 strain was an "unwise" choice to include in the test kits. Meridian Bioscience, Inc., in Ohio, provided the H2N2 virus for the laboratory test kits on behalf of the College of American

Pathologists, the American Association of Bioanalysts, the American College of Family Physicians and the American College of Physician Services.

What steps are being taken to protect the public from influenza A (H2N2) virus?

Because of the safeguards taken in the laboratory when handling influenza virus, the threat of the H2N2 viruses causing influenza in laboratory workers is low, and the chances of H2N2 spreading to the general public are very remote.

Laboratories around the world are constantly looking to see what types of influenza viruses are making people ill. No cases of influenza from H2N2 virus have been detected in the United States since 1967. Laboratories who have received test kits with H2N2 virus have been asked to monitor the health of their workers, and to test them for H2N2 infection if they show symptoms of influenza. To date there have been no reports of H2N2 influenza in laboratory workers using these test kits.

The US Centers for Disease Control and Prevention (CDC) has advised the organizations responsible for distributing the influenza A (H2N2) virus test kits to promptly destroy any remaining supplies of that virus. All laboratories that have received the H2N2 are to report when they have destroyed it. By April 15, 2005, two-thirds of the 3,700 laboratories worldwide that received samples have destroyed the H2N2 virus as instructed. Influenza viruses, including H2N2 viruses, are easily destroyed by routine heat (autoclave) or bleach treatments.

The chain of events that led to the shipment of H2N2 virus is being reviewed by federal and state authorities to prevent similar potential hazards in the future.

For additional information, please visit:

- CDC at **http://www.cdc.gov/flu/h2n2situation.htm**.
- The World Health Organization at **http://www.who.int/csr/disease/influenza/h2n2_2005_04_12/en/**